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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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08/917,480 08/26/97 WAKAYAMA

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| EXAMINER |
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| ART UNIT | PAPER NUMBER |

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AUG 24 1999

**BEFORE THE BOARD OF PATENT APPEALS GROUP 3600
AND INTERFERENCES**

Paper No. 14

Application Number: 08/917,480

Filing Date: 8/26/97

Appellant(s): Wakayama

Robert A. Westerlund
For Appellant

EXAMINER'S ANSWER

This is in response to appellant's brief on appeal filed 5/28/99.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

Art Unit: 3644

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

Appellant's brief includes a statement that claims 1-20 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

Art Unit: 3644

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| 2,549,045 | Ashkenas | 4/17/51 |
| 2,406,506 | Northrop | 8/27/46 |
| 2,428,194 | Bockrath | 9/30/47 |
| 2,492,245 | Sutton et al | 12/27/49 |
| 5,255,881 | Rao | 10/26/93 |
| 878,604 | Messerschmitt | 1/21/42 |
| 3,423,264 | German Reference | 3/85 |

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-20 are rejected under 35 U.S.C. 102(b). This rejection is set forth in prior Office action, Paper No. 6.

(11) Response to Argument

In response to applicant's argument about how the Examiner has failed to specified how the control surfaces are controlled, (i.e., the control mechanism such as gears and actuators to control the control surfaces) note that the claims merele call for a controls surface reconfiguration system.

As for the argument about the Ashkenas reference not discussing the controlling positions of the control surfaces, please note the rejections in the previous office actions. The reference to Ashkenas clearly teaches control surfaces for controlling the flight of the aircraft. Now, as for the "predetermined positions" and the "optimized spanwise force distribution across the wing," note that if a pilot or an autopilot wants the aircraft to bank left or right, the

Art Unit: 3644

control surfaces need to be in a “predetermined” position in order to interact with the airflow to bank the aircraft left or right. This is nothing more than the basic elements of flight. As for the “optimized spanwise force distribution”, when the control surfaces are a “predetermined” position, it would create an optimized spanwise force distribution for that flight condition in order to make the aircraft move in the desired directions. Thus, Ashkenas clearly reads on the claims. As for the applicant argument about “absolutely no teaching at all regarding how the deflectable control surfaces 4, 5, and 6 are operated and controlled”, it seems that the applicant is suggesting that the control surfaces do not function at all. Although Ashkenas is silent as to how the control surfaces are controlled, one skilled in the art would reasonably say that it is controlled by wires or links. Please note that the applicant’s specification doesn’t explain in detail how his control surfaces are controlled.

As for the applicant’s argument concerning claims 2-4, 12-14 (part VIII.D), during certain maneuvers or flight conditions of the aircraft (please note that the applicant did not specifically mention any definite flight conditions) the reconfiguration system operates the control surfaces that certainly minimizes the moment for the flight condition so that the plane turns as desired without stalling or causing other dangerous conditions. At certain flight conditions, it is inherent that the moment would be minimized in order for the aircraft to operate within a safe margin. As for the argument about claim 4, the control surfaces of Ashkenas trims the wing when it is positioned for certain flight conditions.

Art Unit: 3644

As for the applicant's argument concerning claims 5 and 15 (part VIII.E), please note that one skilled in the art would recognize that during a cruise flight condition the optimized condition would be to maximize lift-to-drag ratio. Why would one skilled in the art want to decrease the lift-to-drag to reduce fuel efficiency or produce less lift so that the aircraft will crash?

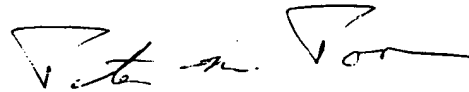
As for the applicant's argument concerning claims 6 and 16 (part VIII.F), the purpose of any skilled aeronautical engineer would be to increase the lifting force and prevent stall. It is inherent that Ashkenas's system to maximize the lift force and prevent stall so the aircraft won't crash. Why would one skilled in the art want to reduce lifting force and cause stall conditions on the aircraft?

As for the applicant's argument concerning claims 7-8-4, and 17-18 (part VIII.E), the claims call for inherent conditions that are necessary in order to achieve the desired flight conditions. The limitations are nothing more than what is normally encountered in flight and what is needed to achieve the desired flight conditions.

Art Unit: 3644

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



PETER M. POON
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8/18/99

T. Dinh
August 17, 1999

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